

Title (en)

Process for the production of molded products using internal mold release agents

Title (de)

Verfahren zum Formen von Spritzlingen mit Hilfe eines internen Formtrennmittels

Title (fr)

Procédé de moulage utilisant un agent de démoulage interne

Publication

**EP 0712707 A3 19971008 (EN)**

Application

**EP 95117251 A 19951102**

Priority

US 33985494 A 19941115

Abstract (en)

[origin: EP0712707A2] The present invention is directed to an improved internal mold release system for the production of high density molded SRIM parts, i.e. molded parts having a density of from 1.3 to 2.0 g/cc. In particular, the process comprises reacting a reaction mixture comprising an organic polyisocyanate and at least one organic compound containing isocyanate-reactive hydrogens in the presence of a catalyst and an internal mold release agent in a closed mold. The internal mold release agent is a compound corresponding to the formula: <CHEM> wherein R<2> represents hydrogen, the group R<5>-NH-CO-, or a C1 to C24 alkyl or substituted alkyl group, a C3 to C24 cycloalkyl or substituted cycloalkyl group, a C2 to C24 alkenyl or substituted alkenyl group, or a C6 to C24 aryl or substituted aryl group, and wherein R<1>, R<3>, R<4> and R<5> may be the same or different and represent a C1 to C24 alkyl or substituted alkyl group, a C3 to C24 cycloalkyl or substituted cycloalkyl group, a C2 to C24 alkenyl or substituted alkenyl group, or a C6 to C24 aryl or substituted aryl group, with the proviso that at least one of R<1>, R<2>, R<3>, R<4> and R<5> is a C12 to C24 alkyl or substituted alkyl group, or a C12 to C24 alkenyl or substituted alkenyl group, and with the further proviso that substituent groups are inert toward isocyanate groups at temperatures of 100 DEG C or less.

IPC 1-7

**B29C 33/60**

IPC 8 full level

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CPC (source: EP KR US)

**B29C 33/60** (2013.01 - EP US); **B29C 33/62** (2013.01 - KR); **B29C 67/246** (2013.01 - EP US); **B29K 2075/00** (2013.01 - EP US)

Citation (search report)

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- [PA] WO 9523056 A1 19950831 - ICI PLC [GB]
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- [DA] US 4895879 A 19900123 - NELSON DONALD L [US], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 14, no. 544 (C - 0784) 4 December 1990 (1990-12-04) & DATABASE WPI Section Ch Week 9043, Derwent World Patents Index; Class AE, AN 90-324559 (43)

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**EP 0712707 A2 19960522; EP 0712707 A3 19971008;** BR 9505191 A 19971028; CA 2159397 A1 19960516; JP H08207072 A 19960813; KR 960017100 A 19960617; US 5529739 A 19960625

DOCDB simple family (application)

**EP 95117251 A 19951102;** BR 9505191 A 19951114; CA 2159397 A 19950928; JP 29521395 A 19951114; KR 19950041235 A 19951114; US 33985494 A 19941115